

# Web-based Collaboration for Virtual Teams

Presented by:

Don Vecellio Ashwin Doraiswamy Nestor Lara



## **Session Objectives**



- Present virtual teaming and knowledge sharing concepts
- Provide an overview of Web-based collaboration tools
- Get feedback from the Environmental Community
  - Needs and Next Steps

## Agenda

| ental                 | • | Overview: Virtual T<br>Web-based Collab<br>Getting Started |
|-----------------------|---|--|
|                       | • | Wiki Demo<br>BREAK   |
| nferen                | • | ESWG Overview Portal Demo                                  |
| ASA<br>Do<br>Do<br>Do | • | Group Exercise<br>Wrap-up                                  |
|                       |   | This is an intera<br>please ask ques                       |

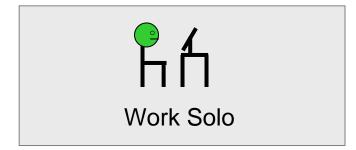
| Overview: Virtual Teams                  | 1:15 - 1:45 |
|--|-------------|
| Web-based Collaboration: Getting Started | 1:45 – 2:00 |
| Wiki Demo                                | 2:00 - 2:30 |
| BREAK                                    | 2:30 - 2:45 |
| ESWG Overview                            | 2:45 - 3:00 |
| Portal Demo                              | 3:00 - 3:20 |
| Group Exercise                           | 3:20 - 3:50 |
| Wrap-up                                  | 3.50 - 4.00 |

This is an interactive working session – please ask questions and discuss issues

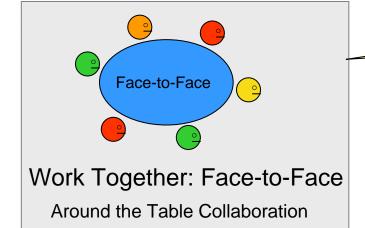


## Overview: Virtual Teams

## **How Do People Work?**







- Portals

Synchronous and A-synchronous collaboration functionality

- Wikis
- Enhanced Security Work Groups (ESWGs)

Face-to-face equally important

- Knowledge Based Risks
- Pause & Learn
- After Action Reviews
- Failure Case Studies

## **What Are Virtual Teams?**



Virtual teams are teams of people who primarily interact electronically and who may meet face-to-face occasionally.

#### **Virtual Team Attributes**

- Work across geographical and organizational boundaries
- Members have links strengthened by communication technology
- Members typically have complementary skills
- Are committed to a common purpose, have interdependent performance goals, and share an approach to work for which they hold themselves mutually accountable
- Meet face-to-face infrequently since they communicate electronically
- A virtual team does not always mean teleworker
  - Teleworkers are defined as individuals who work from home

## What's Needed For Success



- Frequent and Open Communication
  - Individuals must be willing and able to:
    - Discuss Issues, concerns, problems
    - Ask progress & task-related questions
    - Gather and share information relevant to other team members
- Reliable, easy access to communication and web-based collaboration tools for all team members

## Communication

- Consider the existing tool set: (Teleconferences, Emails, Blackberry, IM, Texting, etc.)
  - Is it available to all members of the team?
  - Is it easy to use?
  - Is it reliable?
  - Is it appropriate to the task at hand?
  - Are all team members using it?
  - Is it getting the job done?

## What are Web-based Collaboration Tools?



 Interactive tools / capabilities that can be used to facilitate programs and projects, when face-to-face interaction is not possible

## Why? What are the Benefits?



- Web-based collaboration functionality is implemented to:
  - Help you (personally) work more effectively
  - Help your organization work more effectively
  - Help you achieve mission success

## **How Does it Help?**

#### Cost Reduction

- Enables performance of work in most cost-effective location
- Reduces travel & accommodation expenses
- Increases access to skilled personnel across the agency
- Enables telecommuting

#### Productivity & Effectiveness

- Applies most appropriate resources (from anywhere) to a job
- Allows <u>asynchronous</u> meetings / work

#### Management Buy-In

- Tends to foster higher-up support
- Allows staff to operate closer to customers

#### Improved Staff Satisfaction

- Provides opportunities to participate in more projects
- Builds ongoing relationships/networks across business

## What Tools Are Available?



## Recommended – Wikis, Enhanced Security Work Groups & Portals

- Wikis Makes team meetings more productive.
  - Provides virtual meeting places for asynchronous collaboration that over time become de facto data repositories
- ESWG Gives team members round-the-clock access to their secure virtual team workspace.
  - Provides a "sense of place" where members can meet, capture, organize, interact and hold discussions prior to publishing information
- Portals Lets people access information effectively and efficiently wherever they are.
  - Combines an intuitive environment with an enterprise content management system that enhances knowledge sharing



## Wiki

n. a page or collection of Web pages designed to enable anyone who accesses it to contribute or modify content.

## Breaking down the Wiki...





www.commoncraft.com/video-wikis-plain-english

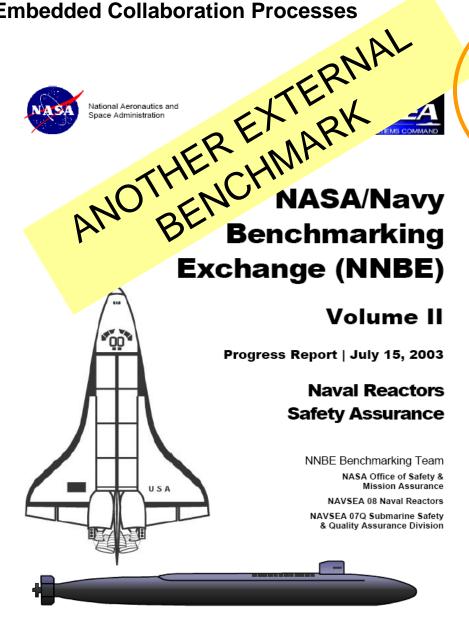
## Doubts?



 Why would I possibly need to waste my time with this stuff?

 I cannot imagine that anyone in NASA might find value in this...

## Nuclear Navy Program Embedded Collaboration Processes





#### NR Systems Managers

- Fluid Systen
- Electrical Systems

#### NR Component M nagers

- Primary Components
- Valves
- Reactor
- Physics

#### NR Support Managers

- Reactor Safety & Analysi
- Environmental Health and Safety
- Radiological Controls and Chemistry
- Refueling
- Materials
- Operations and Training
- Financial
- External Affairs

NR Program Managers

#### NR Field Offices

- Prime Contractors (Labs)
- Naval Shipyards

Figure 3.4

NAVSEA 08
128 Million
Miles traveled
safely on
nuclear
propulsion

## Has No SMA Organization

THEY RELY ON COLLABORATION &

the Art of

"Over-communication"

## Implementation @ NASA

#### FEDERAL DIARY

Stephen Barr

Agencies Share Information By Taking a Page From Wikipedia

hen President Bush challenged Congress to cut the number and cost of earmarks by half, the administration's budget chiefs turned to their wiki.

That's right, the Office of Management and Budget, where caution and precision rule, has embraced Wikip it as a model, hosting an online place was a federal officials can swap informatio, and ideas outside traditional boundaries.

After hearing the president's hallenge last year, the budget officials kne that the White House would need a tally or the pet spending projects that Congress had inserted into the federal budget if the

outside traditional boundaries.

D4 Monday, January 28, 2008

Federal

#### **FEDERAL DIARY**

Governing With a Wiki Twist

DIARY, From D1

after all. For security, federal officials have to ask permission to join; it is not open to the public or Congress.

Still, the earmarks project underscores how

Budget offi "governmentw monitor such is financial manage Links are availab

requests for data

o may click into ities" to discuss or e-government, an capital.

### **Even OMB Gets It**

business decisions.

It has 5,500 members and is growing by hundreds each month. A number of federal agencies are creating their own pages on the wiki, taking advantage of its automated tools and services that can perform multiple budget ecenarios and analyze data.

That's right, the Office of Management and Budget, where caution and precision rule, has embraced Wikipedia as a model, hosting an online place where federal officials can swap information and ideas

comments, search content and request e-mail updates when pages change. Users can restrict their pages to "invitation only" or open them only to certain groups. roles in rolling out the wiki and steering its development. It is part of a larger initiative to find ways to produce the federal budget with common, automated processes that agencies can share rather than rely on their desktop office software.

The budget wiki is not the government's only foray into user-generated content and sharing of portant documents through password-protected es. In 2006, the intelligence community inched Intellipedia to foster sharing of bornation. It has 32,000 users and more than 0.000 pages, which are edited or updated about 00 times a day.

((aren Evans, who oversees government-wide choology policy at the OMB, views wikis as a ly to provide an opportunity "where everybody is a say" that then leads to "a very informed cision" by officials.

Too often, the government takes three years or yeer to reach agreement on a solution to a oblem, but the problem will have grown or anged in the meantime, Evans said. "How timely that?" she asked. "Are you addressing the same to you started out with?"

he you started out with?"
Today, with the Internet, "technology people can
liver solutions and capabilities really fast, while
people are still focused on the problem," she said.

Stephen Barr's e-mail address is barrs@ washpost.com.



# Web-based Collaboration Getting Started

## **6 Steps for Virtual Teams**

## Step 1: Founder Creates "Core Team" - Clear & Concise Purpose

#### Step 2A: Work Process - "Rapid BPA" - 10 Questions

- What comes in? What goes out?
- What do you do?
- What do you produce?
- What information do you need to do your work?
- What people do you need to do your work?
- Who is the direct customer?
- Who else benefits from your product?
- What rules & requirements govern the work?
- What checks and controls do you implement?
- Who is your boss or your sponsor?
- How often do you deliver product?

## Step 2B: Map Your Work Process

#### Step 3: Develop Your Knowledge Architecture

- Should Mirror the Work Process
- Should Have Elements of Plan/Do/Check

#### Step 4: Build Content Develop Content & Populate the Wiki or CoP Knowledge Architecture

- Personal ROI

Team ROI

#### Step 5: Build the Team Expand the Team to Include

Expand the Team to Include All Individuals Necessary to Perform the Work



#### Step 6: Work

- Individually find information you need to do your job more effectively – build on past examples
- Collectively collaborate asynchronously to develop work products

## 1. Establish Core Team & Statement of Purpose

#### Core Team

- Founder, Administrator, and initial team members
- Provides initial structure and initial content for Wiki (or ESWG)

#### Statement of Purpose

- Clearly and concisely states the reason for creating the virtual team
  - Helps keep the group focused
  - Avoids creating "granny's attic" a place where things go and get lost
- Addresses Return on Investment
  - How will creating this Wiki benefit you?
  - How will creating this Wiki benefit the entire virtual team?

### 2. Understand Your Work Process



#### Conduct "Rapid Business Process Analysis"

- What do you do? What do you produce?
- Who is the customer? Who benefits from your product?
- What information do you need to do work?
- What rules and requirements govern your work?
- What checks and controls do you implement?
- etc.

#### Map your Work Process

- Develop a WBS, graphical flow-chart, bulleted list, or other means to capture and summarize your work process at a high level
- Answer the question:

"How will your Wiki help get work done?"

### 3. Develop a Knowledge Architecture



- The Knowledge Architecture represents the underlying foundation and organizational structure of your Wiki content
  - Should mirror the Work Process
  - Should have elements of Plan / Do / Check
  - Navigated through Wiki spaces and hyperlink chains
- Knowledge Architecture Taxonomies can be:
  - Issue-based
  - Work Breakdown Structure-based
  - Events-based
  - Function-based

## **Knowledge Architecture Example**

#### PROCESS BASED MISSION ASSURANCE (PBMA) FRAMEWORK

A Systems Approach for Safety & Mission Success Management

|  |  | Formulation   |   | Implementation  |  |   |   |  |
|--|--|---|---|---|--|---|---|--|
| Project Phase  | 1.0<br>Program   | 2.0<br>Concept  | 3.0<br>Acquisition  | 4.0<br>Hardware   | 5.0<br>Software  | 6.0<br>Manufacturing  | 7.0<br>Pre-Ops Int &  | 8.0<br>Operations  |
| Elements   | Management   | Development   |   | Design  | Design   |   | Test  |  |
| 0.1 Policies  -Rules and Guidelines We Need To Follow          | 1.1<br>- NPD 8700.1<br>- NPD 7120.4B<br>- NPR 7120.5C<br>- Public Law 105-<br>275              | 2.1  NPR 7120.5C  Human Rating  Payload Safety  Tech Standards  Vol. & Consensus Standards  | 3.1<br>- R-BAM<br>- FAR<br>- NASA FAR Sup<br>- NPR 7120.5C<br>- OMB Circulars<br>- DoD 5000 | 4.1 - NPR 7120.5C - NPD 8710.5 and stubs - NPD 8730.3 and stubs - Orbital Debris - Human Rating | 5.1<br>- NPR 7120.5C<br>- NASA STD-<br>8719.13A<br>- NPD 8730.3 and<br>stubs<br>- IV&V<br>- Tech Transfer  | 6.1<br>- NPR 7120.5C<br>- NPD 8730.3 and<br>stubs<br>- NEQA Docs<br>- Tech Standards<br>- Vol. & Consensus<br>Standards | 7.1 - NPR 7120.5C - NPD 8610.24A - ELV Policies - Vol. & Consensus Standards  | 8.1 - NPR 7120.5C - Nuclear Safety - Planetary Protect - Orbital Debris - EWR 127-1 - Range Cmd Council (RCC)    |
| 0.2 Planning -Defining and Organizing the Things We Need To Do | 1.2 - Program Plans - S&MA Plan - Risk Mgmt Plan - Program Safety - QA Plan - Config Mgmt Plan | 2.2 - Life Cycle Req's Planning - Long Lead Compliance                                      | 3.2 - Develop SOW - Acq Strategy Plan - Contractor Surveilance Plan                         | 4.2 - Concurrent Eng<br>Plan - System Spec - Design Req<br>Mgmt Plan - Material & Parts<br>Plan | 5.2<br>- Software Dev<br>Mgmt Plan   | 6.2 - Work Review Plans - Supply Chain Mgmt Plan - Trans Handling and Storage Plan - Contam Control                     | 7.2 - Develop Integ & Test Req's - Pre-Ops Int & Test Plan  | 8.2 - Fit Safety Assur<br>Planning - Range Safety - Gmd Ops Safety - Ops FMEA - Emergency Prep - Contigency Plan |
| 0.3 Processes  -Doing the Things We Need To Do                 | 1.3  Resource Mgmt  Schedule Mgmt  Doc and Data Mgmt System                                    | 2.3  - Req's Analysis  - Functional Analysis & Aloc  - Pert Metrics  - WBS  - Verif Concept | 3.3  - Develop Acq. Instruments  - Acq. Lessons Learned                                     | 4.3 - Implement Adv Quality - Design-for-X - Human Factors - Tools & Techniques                 | 5.3 - Software FMEA - Human Factors - Tools & Techniques   | 6.3<br>- Implement Adv<br>Quality   | 7.3 - Flight H/W & S/W Intergrated Testing - Conduct Demo, Inspections - SMA Verification Activities - Working Groups | 8.3 - Environ Impact Assessment - Safety & Risk Trend Analysis - Real-Time Ops Support                           |
| 0.4 Program Control -Checks and Balances                       | 1.4 - Implement Config - Mgmt - Milestone Review - Implement Msn Success Plans - Employ IA     | 2.4 - Concept Dev Reviews - Risk Assess Reviews - Science Theme Conformance                 | 3.4 - Implement R-BAM - Train Source Eval Board - Due Diligence - Tools and Techniques      | 4.4 - Sys Safety Hazard Analysis - Design Verif Processes - Employ IA                           | 5.4 - Process Maturity (CMM) - S/W Safety and Hazard Analysis - Milestone Rev's - Design Verif - Employ IA | 6.4  - Change Control  - Process Capab  - Work Control  - Processes  - Material Review  - Board  - Employ IA            | Pre-Ops Int & Test inherent   | 8.4 - Ops readiness<br>Reviews - IA of Ops<br>Readiness  |
| 0.5 Verification and<br>Testing                                | Program Team     Capabilities     Cost/Resource     Balance     Pgm Reserves     and Margins   |   | 3.5<br>n implicit in<br>rocesses  | 4.5 - Verif. Plan - Conduct Analysis, Demonstration, Similarity, Inspection, Modeling & Sim     | 5.5 - S/W Verification Test Plan - Formal Methods -Conduct Testing   | 6.5 - Verification Plan - Conduct Test, Demonstration   | control & verif functions   | 8.5  Verification implicit in control process  |

## 4. Build Content



- Populate, refresh, and manage knowledge artifacts within the Wiki taxonomy
  - Ensure the Wiki is frequently updated and doesn't grow stale
    - Implement critical links to documents and other web-based resources
    - Upload critical documents to the wiki page
    - Ensure all links are functional
  - Evolve the Wiki over time

Wikis are only as good as you make them!

## 5. Build the Team



- Expand the team to include all individuals necessary to do work
  - Invite process participants and content providers critical to meeting team objectives
  - Invite customers and/or stakeholders
- Manage Permissions
  - Assign permissions as soon as new member join your virtual team
  - Certain members should have ease of access and/or edit rights
  - Other members may only have view / comment permissions

## 6. Collaborate on Work



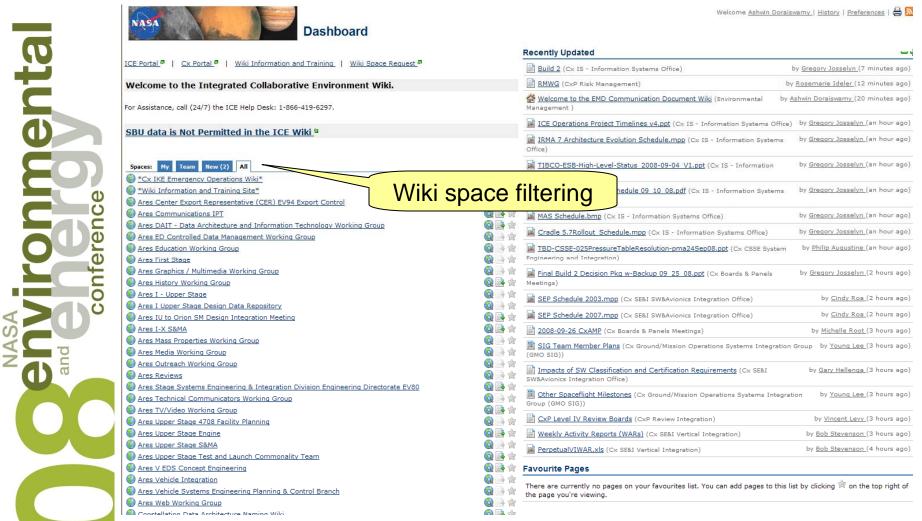
- Getting started is hard keep your forward momentum going by using your Wiki to get work done
  - Individually: find information you need to do your job more effectively
  - Collectively: collaborate asynchronously to develop work products

The secret to success is integrating Web-based collaboration seamlessly into your work process.

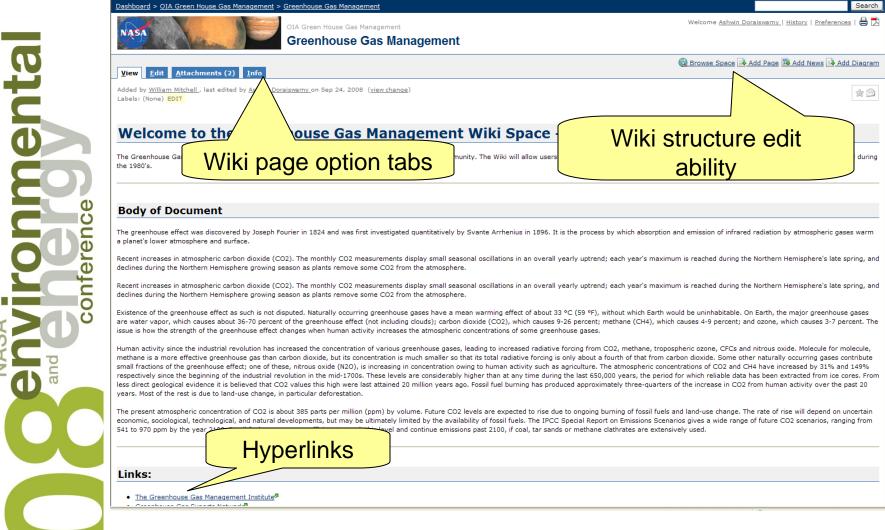


# Wikis for Environmental Management

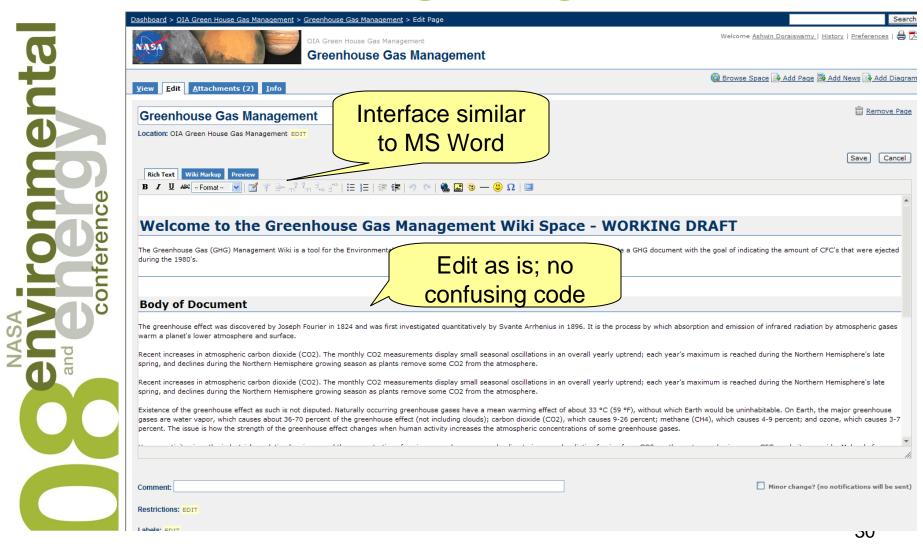
## The Wiki Dashboard



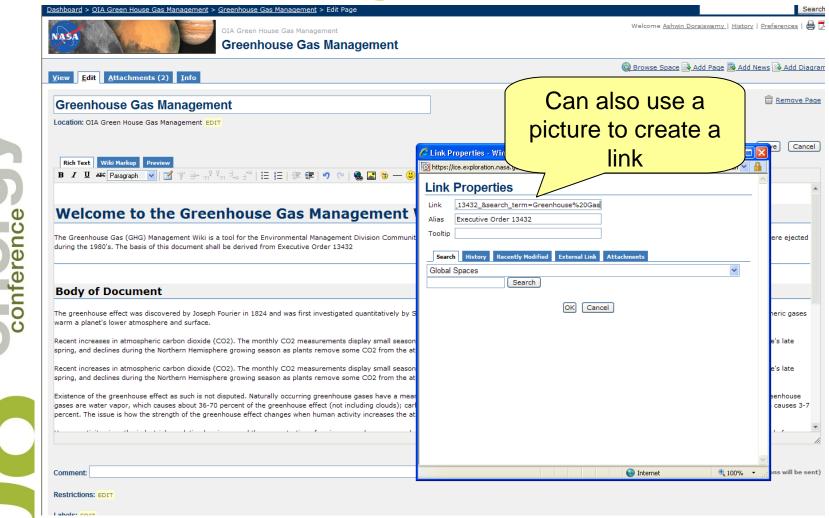
## The Greenhouse Gas Wiki



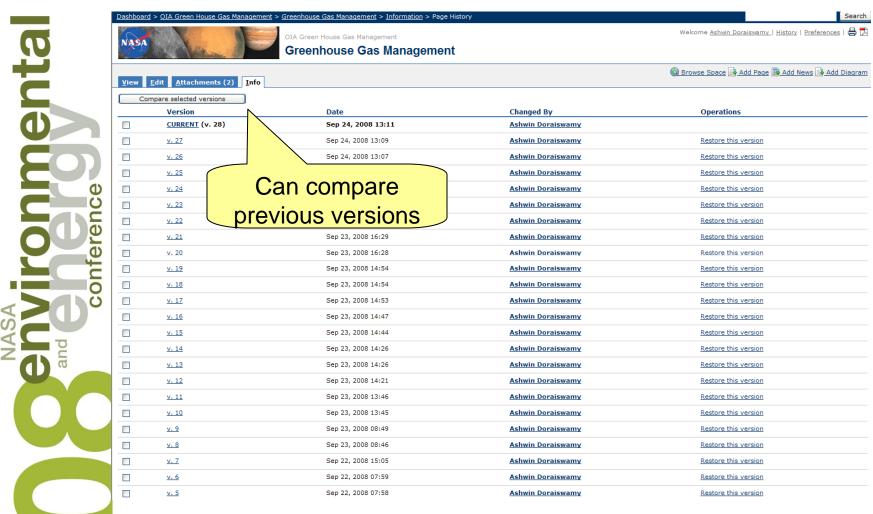
# Adding / Editing Content Using "WYSIWYG"



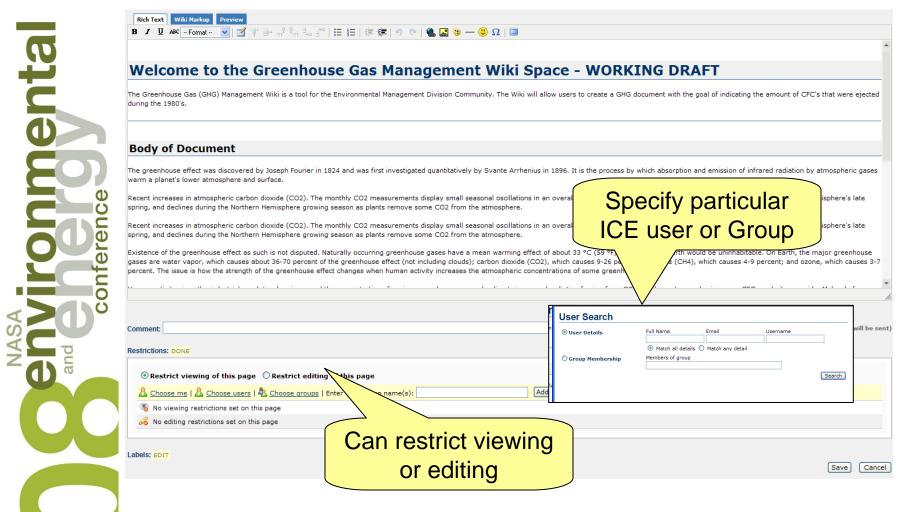
## **Utilizing Links**



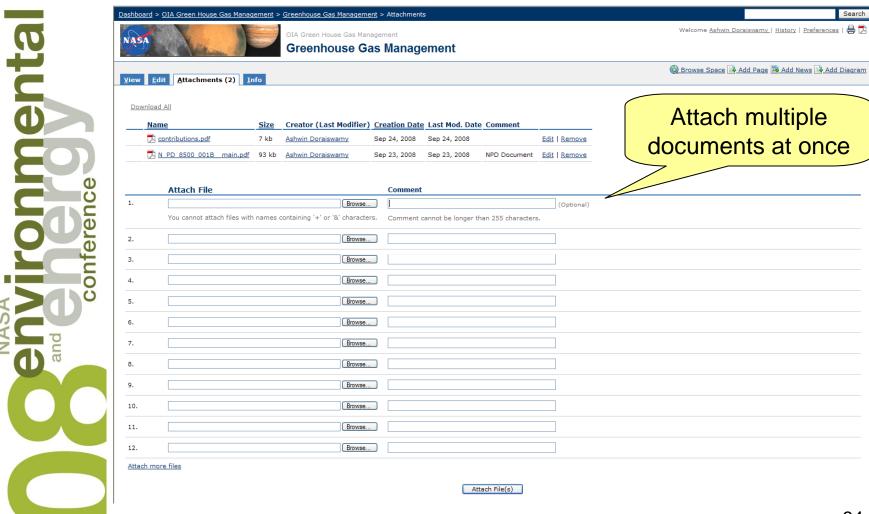
## Viewing Version History



# Setting Restrictions & Permission Levels



## **Adding Attachments**



## **Adding Comments**

Human activity since the industrial revolution has increased the concentration of various greenhouse gases, leading to increased radiative forcing from CO2, methane, tropospheric ozone, CFCs and nitrous oxide. Molecule for molecule, methane is a more effective greenhouse gas than carbon dioxide, but its concentration is much smaller so that its total radiative forcing is only about a fourth of that from carbon dioxide. Some other naturally occurring gases contribute small fractions of the greenhouse effect; one of these, nitrous oxide (N2O), is increasing in concentration owing to human activity such as agriculture. The atmospheric concentrations of CO2 and CH4 have increased by 31% and 149% respectively since the beginning of the industrial revolution in the mid-1700s. These levels are considerably higher than at any time during the last 650,000 years, the period for which reliable data has been extracted from ice cores. From less direct geological evidence it is believed that CO2 values this high were last attained 20 million years ago. Fossil fuel burning has produced approximately three-quarters of the increase in CO2 from human activity over the past 20 years. Most of the rest is due to land-use change, in particular deforestation. The present atmospheric concentration of CO2 is about 385 parts per million (ppm) by volume. Future CO2 levels are expected to rise due to ongoing burning of fossil fuels and land-use change. The rate of rise will depend on uncertain economic, sociological, technological, and natural developments, but may be ultimately limited by the availability of fossil fuels. The IPCC Special Report on Emissions Scenarios gives a wide range of future CO2 scenarios, ranging from 541 to 970 ppm by the year 2100. Fossil fuel reserves are sufficient to reach this level and continue emissions past 2100, if coal, tar sands or methane clathrates are extensively used. Links: The Greenhouse Gas Management Institute Greenhouse Gas Emissions Management<sup>®</sup> onferen **External Requirements** Easy to use Rich Executive Order 13432

Text format

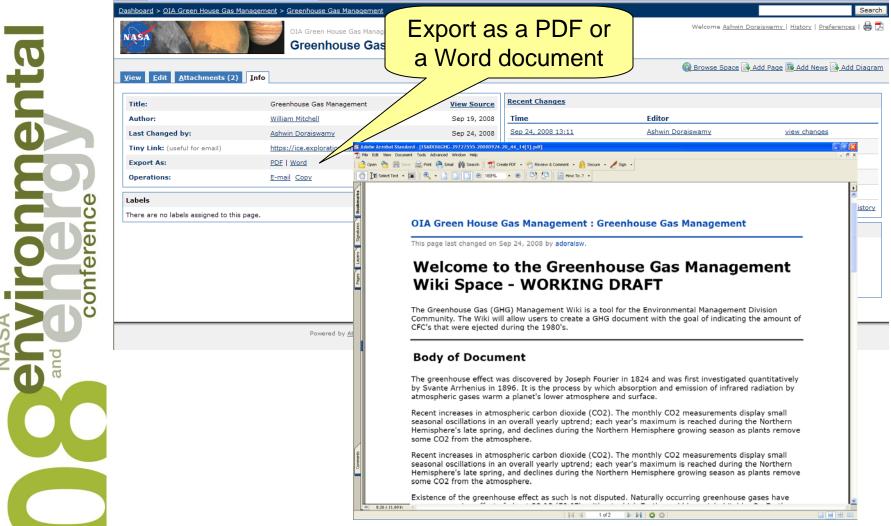
Comments (Hide Comments)

Rich Text Wiki Markup Preview

B / U -Format - V

Post Cancel

## **Exporting the Wiki**



## **The EMD Communications Wiki**

<u>Dashboard > Environmental Management > Welcome to the EMD Communication Document Wiki</u>

#### Welcome to the EMD Communication Document Wiki

View • Edit • Attachments (28) • Info











The Environmental Management Division and Assurance Management Wiki learn more... (Need Help Wiki-ing?)

#### Communications Document

(Some sections are hyper-linked to their respective pages)

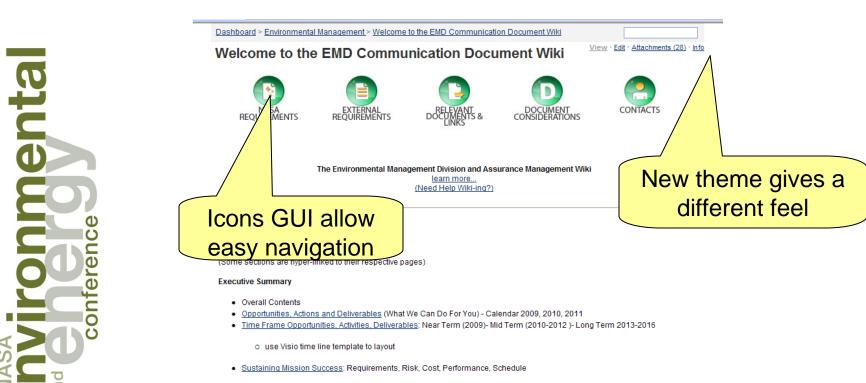
#### **Executive Summary**

- Overall Contents
- . Opportunities, Actions and Deliverables (What We Can Do For You) Calendar 2009, 2010, 2011
- Time Frame Opportunities, Activities, Deliverables: Near Term (2009)- Mid Term (2010-2012) Long Term 2013-2016
  - o use Visio time line template to layout
- . Sustaining Mission Success: Requirements, Risk, Cost, Performance, Schedule
  - O How does EMD support mission success from a r, s, c, p, & s standpoint?
- Principal Centers
  - o What do they do?
  - o How do they support mission success?
- Innovation and Leverage: Effectiveness and Efficiency
  - o Innovation How is EMD operating to increase effectiveness and efficiency?
  - o Leverage How is EMD working with others to increase effectiveness and efficiency?

#### **Body of Document**

- Opportunities
- External and Internal Requirements
- EMD Structure (Environmentally-Driven Risk-to-Mission)
  - o Goals and Objectives

# **A New Theme**



- O How does EMD support mission success from a r, s, c, p, & s standpoint?
- Principal Centers
  - o What do they do?
  - o How do they support mission success?
- Innovation and Leverage: Effectiveness and Efficiency
  - o Innovation How is EMD operating to increase effectiveness and efficiency?
  - o Leverage How is EMD working with others to increase effectiveness and efficiency?

#### **Body of Document**

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## **RSS Feeds**



■ Terms and Definitions \*\*\*

Manchester, N.H. Landlords Face Fines for Failing to Warn

U.S. EPA acts to protect public from Unelko Corporations's

U.S. EPA Awards \$1.13 Million Grant to West Coast Nonprofit to Help Truckers Save Fuel, Improve Air Quality Maine Company Fined for Clean Air and Emergency Right-to-Know Act Violations Five New Performance Track Members Pledge to Improve the Environment with Goals that Surpass Environmental Regulations Keep on Trucking - with Lower Emissions through EPA's \$50

Green Building Award Winners Make New York City More

Tenants about Lead Paint

Million Clean Diesel Funding

#### **RSS Feeds** News Wednesday, September 17, 2008 NASA Check out the new EMD wiki NASA Breaking News (A RSS news feed containing the latest NASA news articles and We have made many changes to the EMD wiki. Please post press releases.) comments by clicking the "Add Comment" link below. NASA Announces New Target Launch Dates, Status News Posted at Sep 17, 2008 by A Nestor Lara | 0 comments | NASA and the Levine School Combine Space and Music Ulysses Reveals Global Solar Wind Plasma Output At 50-Wednesday, April 23, 2008 50th Anniversary Gala Event Carried Live On NASA TV and 2008 Blue Marble Awards Last changed Apr 23, 2008 13:14 by Kathleen Callister NASA to Preview Next Space Station Expedition Posted at Apr 23, 2008 by A Kathleen Callister | 0 EPA U.S. EPA News (U.S. EPA News) Agencies Selected to Receive Almost \$5 Million in Diesel **Emission Reduction Grants** EPA Seeks Public Comment on Proposed Changes to List of Impaired Waters for Missouri

RSS enables information to be pushed and pulled

# Enhanced Security Work Groups (ESWGs) An Overview

## **ESWGs**



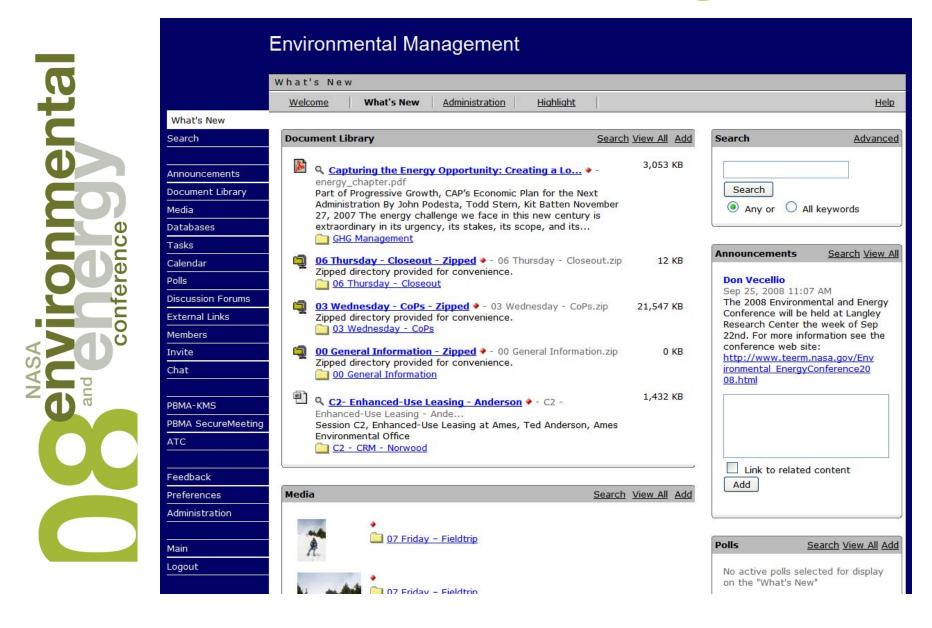
- Provide quick and easy access to critical information to support program/project managers and professionals across all NASA programs and projects.
- Key Functions include:
  - Home Page (What's New, Announcements, Links)
  - Document Sharing (Upload/Download)
  - Calendar
  - Polls
  - Threaded Discussions
  - Database Functionality
  - Permissions-based Access
    - Private or public displaying for all content

# Why use an ESWG, not a Wiki?



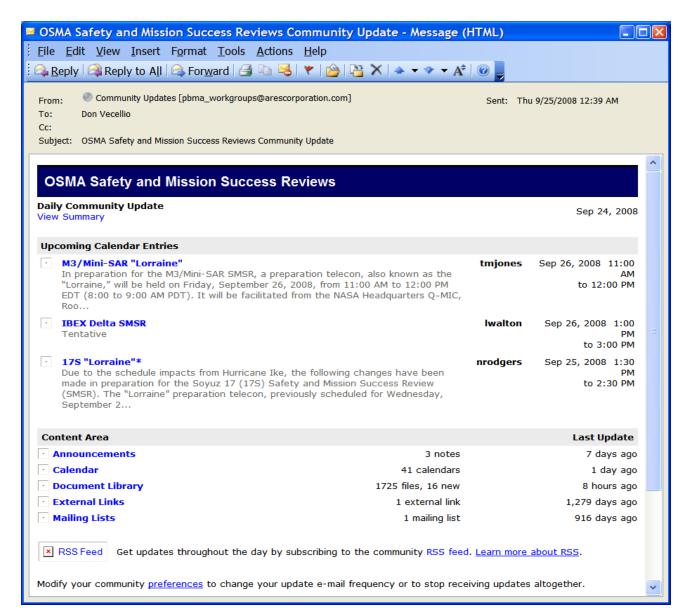
- Need to collaborate with external organizations (Gov't, Industry, Academia)
  - Include them in your Virtual Team
  - Keep "in the loop" and share info
- Need to work on SBU or other sensitive data
  - ITAR/EAR
  - SEB / Proprietary Data
  - "Pre-decisional data
  - (NOT CLEARED for Classified / National Security Information)
- Currently more than 750 ESWGs and 10,000+ users
  - You may get involved with existing Communities of Practice / Virtual Teams
  - Tool functionality is nearly the same

# ESWG - Home Page

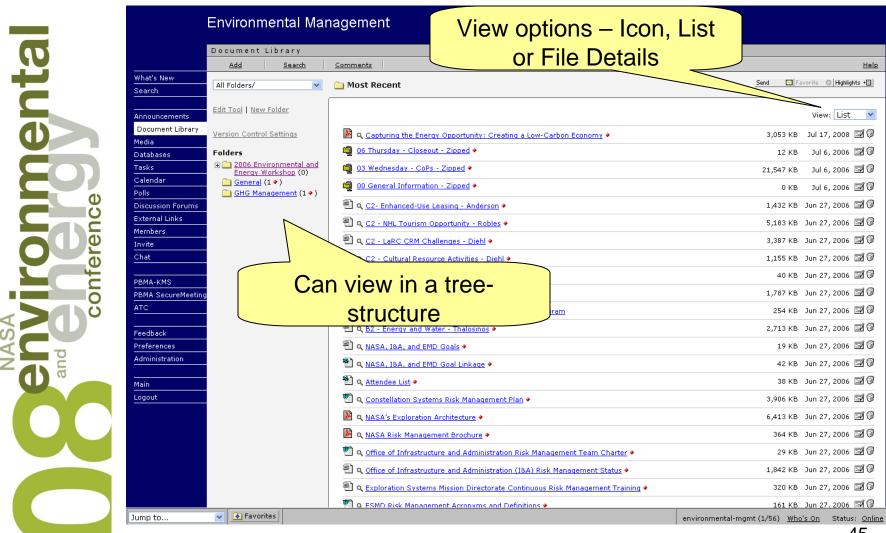


## ESWG - What's New - Email

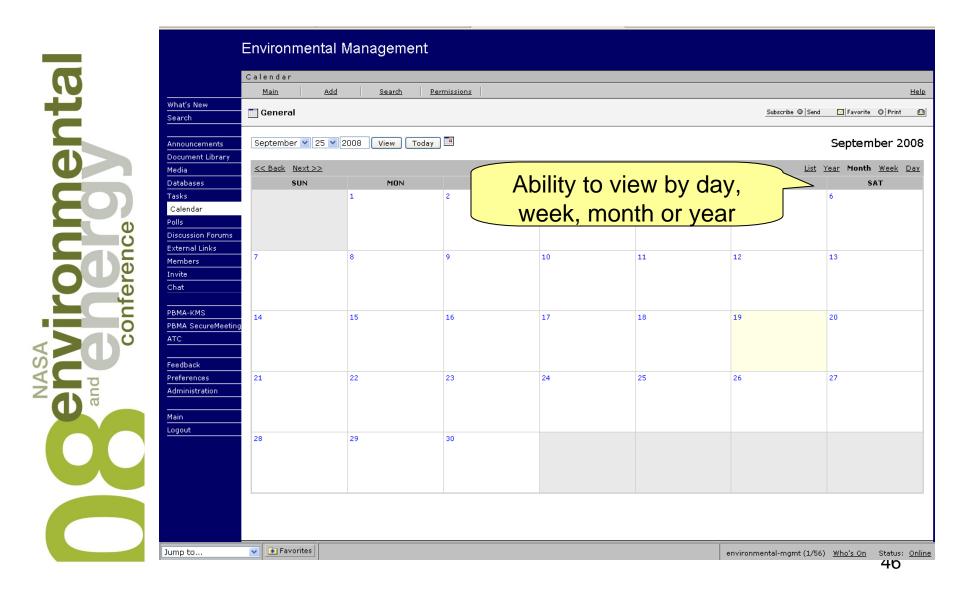




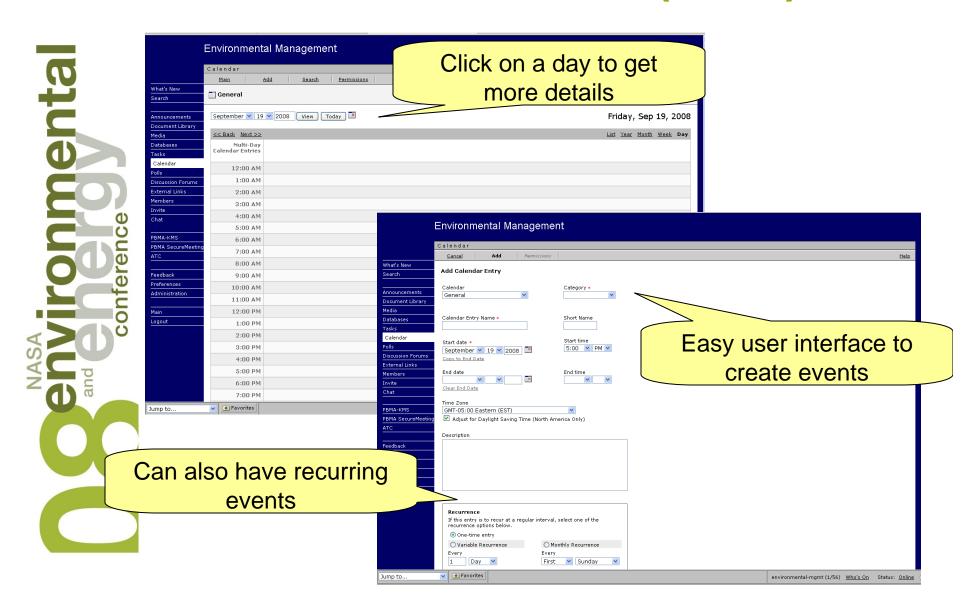
# **ESWG – Document Library**



# **ESWG - Calendar**

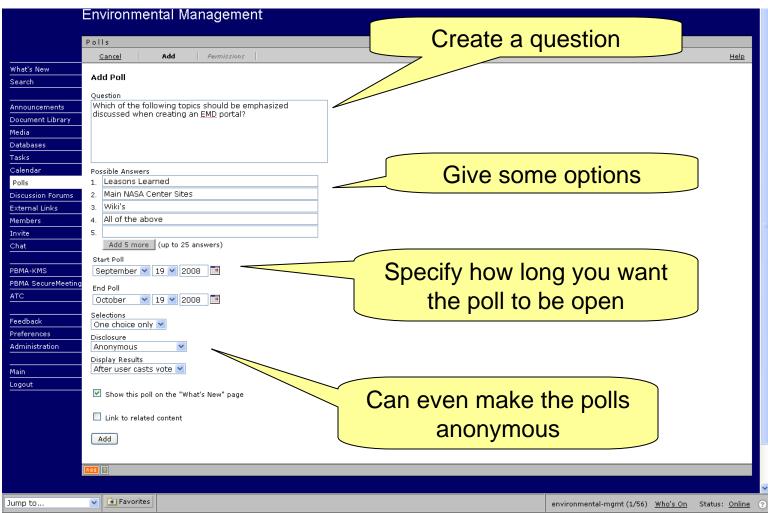


# ESWG - Calendar (cont.)



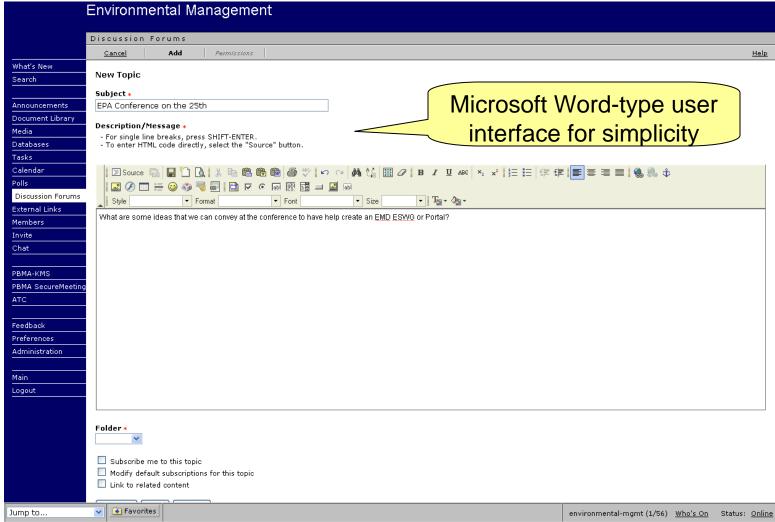
# **ESWG - Polls**



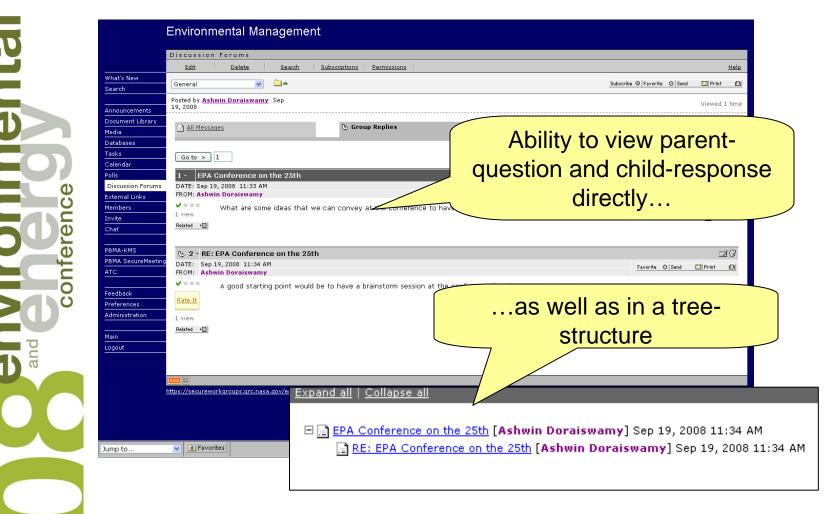


### **ESWG – Threaded Discussions**

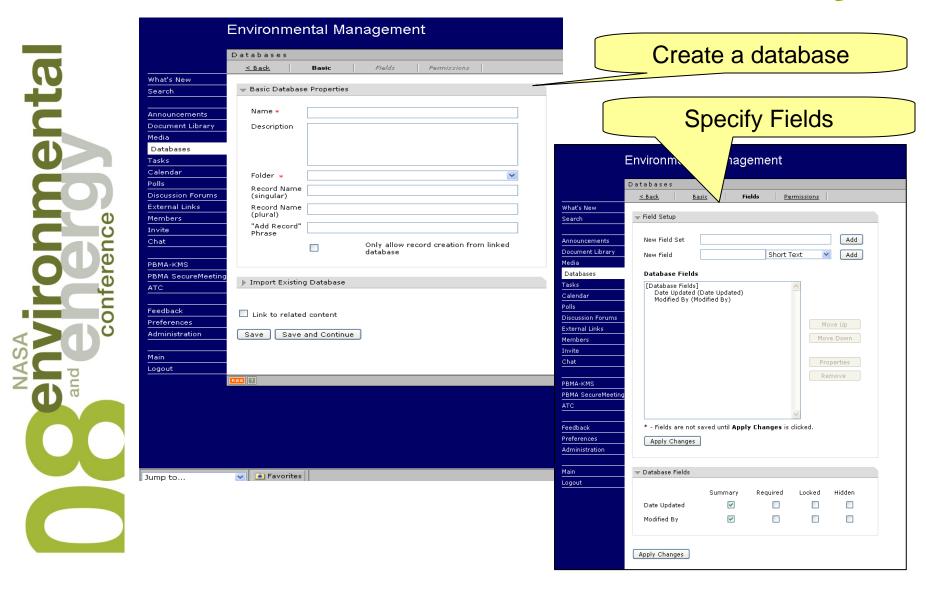




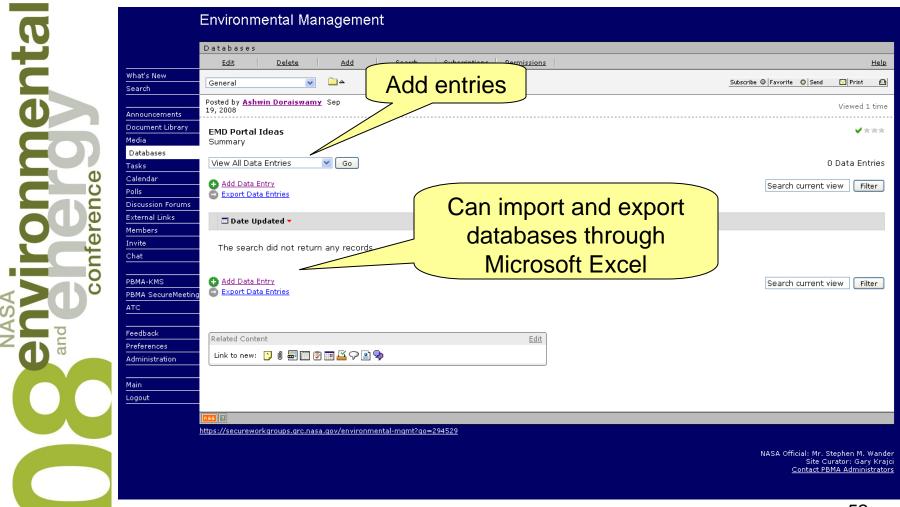
# ESWG – Threaded Discussions (cont.)



# **ESWG – Database Functionality**



# ESWG – Database Functionality (cont.)





# Portals

# The ICE Portal

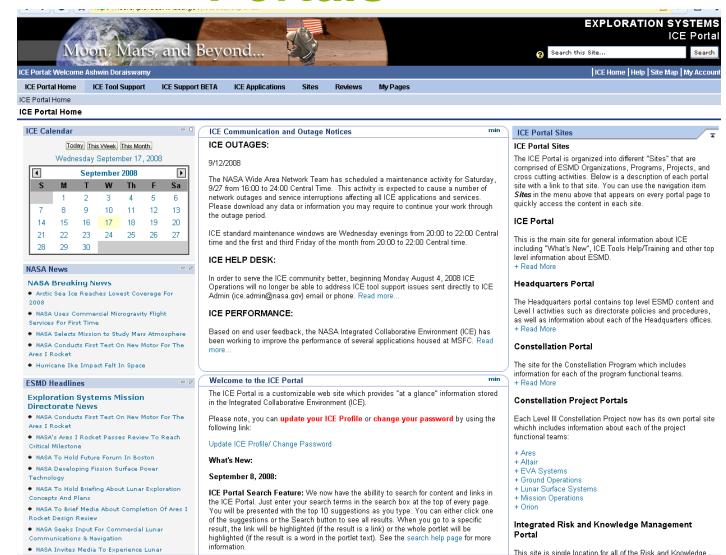


 Provides a wide array of resources and services for the ESMD Risk and Knowledge Management community.

 Portlets expose you to the existing practices aid in the effort to integrate risk and knowledge management over NASA designed to generate and share knowledge for reuse.

# Implementation @ NASA - Portals



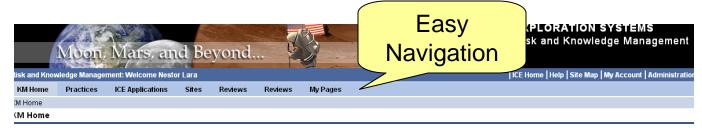




# Portal for Environmental Management Division

## The ICE Portal





#### Welcome to the NASA ESMD Integrated Risk & Knowledge Management Portal

#### The Risk and Knowledge Management Portal provides a wide array of resources and services for the ESMD Risk and Knowledge

Management community. The portlets to the right expose you to the existing practices designed to generate and share knowledge for reuse. These practices aid in the effort to integrate risk and knowledge management over the life cycle of Constellation and Advanced

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#### Knowledge Based Risks

KBRs capture risks that have been successfully mitigated in the past that are potentially relevant to many current topics. Learn more about KBRs.

#### KBR Spotlight:



"Hardware Variations Between Qualification and Flight Units in the Lunar Rover" Gary Johnson



"Insufficient Documentation and Traceability of Requirements Related Rationale\* Ralph V. Anderson



Knowl

"Exceeding Acoustic Levels Inside

#### Spacecraft<sup>1</sup> Gregg Baumer Chairman of the ISS

-Sharing Forums

the upcoming forums:

JSC Chief Engineer's Office

#### Risk and Knowledge Management Portal Highlights



- Check out the ASK Magazine articles Fusing Risk Management and Knowledge Management and Managing—and Learning from—a Lunar Reconnaissance Orbiter Risk
- Visit the MOD site and check out the Lessons Learned on Apollo.
- · Check out the new JSC Knowledge On-Line
- · Need Help Finding It? Fill out the form below and we will help you locate a risk record, document, report, article, and other resources.
- . New GAO Reports: Increased Focus on Requirements and Oversight Needed to Improve DOD's Acquisition Environment and Weapon System Quality
- Need posters for the ESMD IRKM Practices? Click here

#### **Upcoming Conferences and Workshops**

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• 10th ESMD Risk and Knowledge Management Workshop, 19-21 August 2008 at GRC

#### **ESMD Training Opportunities**

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#### Take advantage of several available training resources:

- · Defense Acquisition University Training Homepage NASA APPEL
- NESC Academy
- · Aerospace Institute

#### Risk Management

- ESMD fundamentals for ARM <sup>1</sup>
- CxP Risk Management (PPT)
- · Assurance Technology Center

Quick link to video nuggets

#### udio and charts from our owledge capture and transfe th Dr. Nancy Dixon have our wiki.

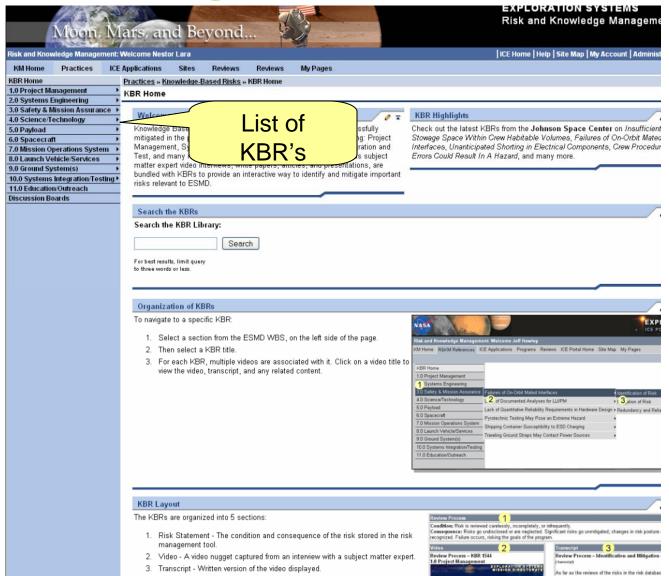
the knowledge of NASA's and our brs' most experienced practitioners at

> ideo of Bo Bejmuk's ne ESMD Knowledge Cafe i titled "Are We Learning From Past

Lessons?" has been uploaded to the JSC Engineering

# **Knowledge Based Risks**



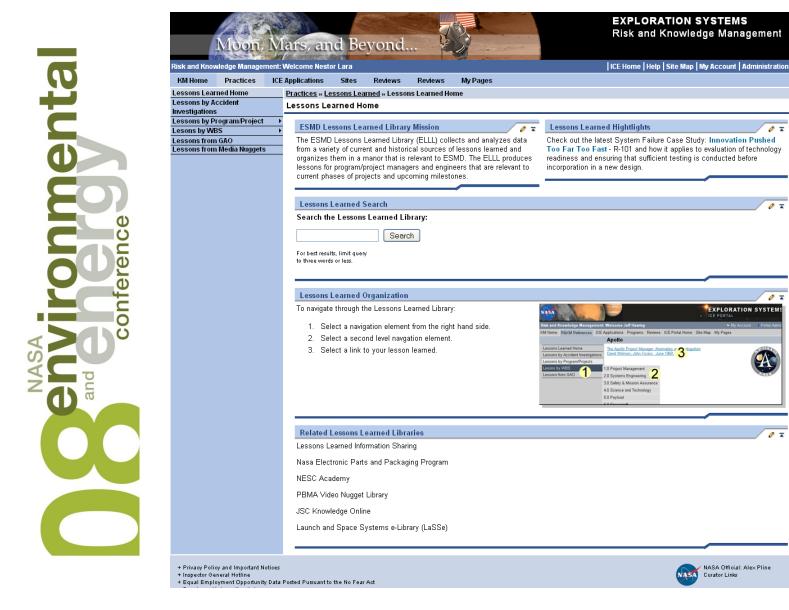


# Identification / Mitigation of Risk





## **Lessons Learned**



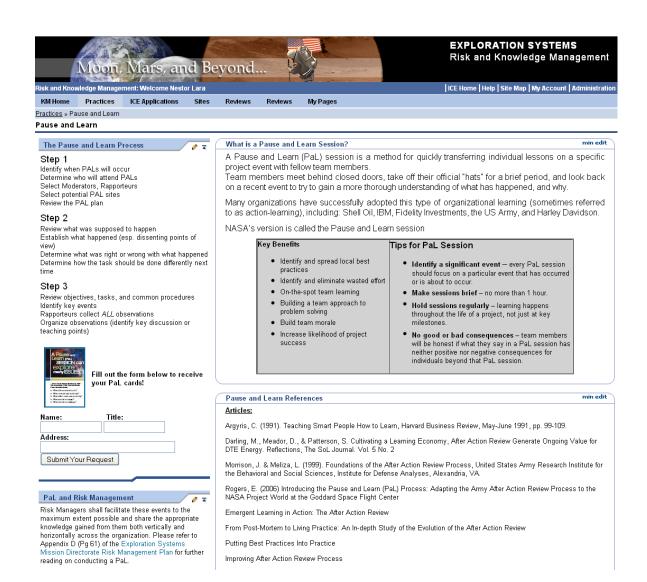
# Lessons Learned – Accident Investigation



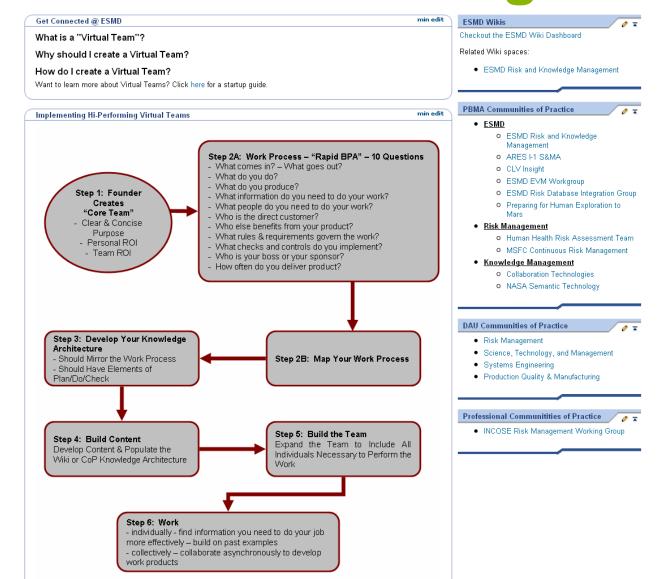


# Pause and Learn (PaL)





# **Virtual Teams Page**



# **EMD Portal Objective**

### Provide a "One Stop Shop" for:

- Environmental news (HQ and Centers)
- Environmental management websites (internal and public)
- Top-level environmental metrics
- Mission pages (within ICE and elsewhere)
- CoP Wiki sites
- CoP ESWGs
- Knowledge sharing and lesson learned capture
- Environmental and Risk management processes, best practices, and tools
- Environmental Lessons learned and Training

# Group Exercise

# **Group Exercise**



 We would like your help getting feedback and understanding the needs of the community for:

#### 1. EMD Portal Content and Functionality

"Desirement" and Short Description

#### 2. Future Wikis and ESWGs

Title, Purpose (1-2 sentences), Type (Wiki or ESWG)

#### 3. Potential Environmental KBR Topics

Subject, Lesson Learned (1-2 sentences), POC



# Next Steps...

How Do I Get an ICE Account?

How Do I Start a Wiki?

How do I Start an ESWG?

# Requesting an ICE Account

- Enter the following URL: <u>https://ice.exploration.nasa.gov/Windchill/netmarkets/register/register.jsp</u>
- Fill out the various information fields requested, and then click Next>>
- Select any other applications within ICE that you are requesting access and then click Next>> (Note: No additional access is required for a Wiki).
- Type out a brief justification for your account request, read the user agreement, and then click Accept.

# Requesting a Wiki



- Note: You MUST be a NASA civil servant with an ICE account to request a Wiki.
- Enter the following URL: <u>https://ice.exploration.nasa.gov/ice/site/ice</u> <u>portal/wiki\_request/</u>
- Fill out the required information, including a justification for your request.
- Click Submit Request.

# Requesting an ESWG Account

- Enter the following URL: <u>https://secureworkgroups.grc.nasa.gov/</u>
- Click Create an Account.
- Fill out the various information fields requested.
- Click Submit Request.
- After activation, go to the link above to log in and to browse available ESWG groups

# **Creating a New ESWG Group**

- - Enter the following URL: <a href="http://pbma.nasa.gov/secureworkgroups\_main\_cid\_19">http://pbma.nasa.gov/secureworkgroups\_main\_cid\_19</a>
  - Click on Request a New Enhanced Security Work Group.
  - Fill out the requested information fields
  - Click Send Request.

## References



- "Building High-Performance Virtual Teams". lan Beeson The Performance Through Development Group. 2006.
- "Web-Enabled Virtual Teams". Dr. Steve Newman - ARES Corporation. 2008.
- "CommonCraft: Wikis in Plain English" -<u>www.commoncraft.com/video-wikis-plain-english</u>